

# In Concord, a high price for suburban serenity

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CONCORD — For his family's 15,000-square-foot dream home, businessman Douglas R. Brown chose a wooded spot in the north end of Concord, not much different from when Henry David Thoreau hiked there in the 1850s.

"The remote location was an attractive issue for us," Brown recalled. "We never thought about the additional time it would take for the fire department to get there."

Seven times now, emergencies small and large have schooled the Brown family in the price of serenity. Concord — like Carlisle, Boxford, and many affluent suburbs around Boston and other US cities — has too few fire stations and too few firefighters to protect all of the town. The town's story is, in this respect, a disturbingly commonplace American story.

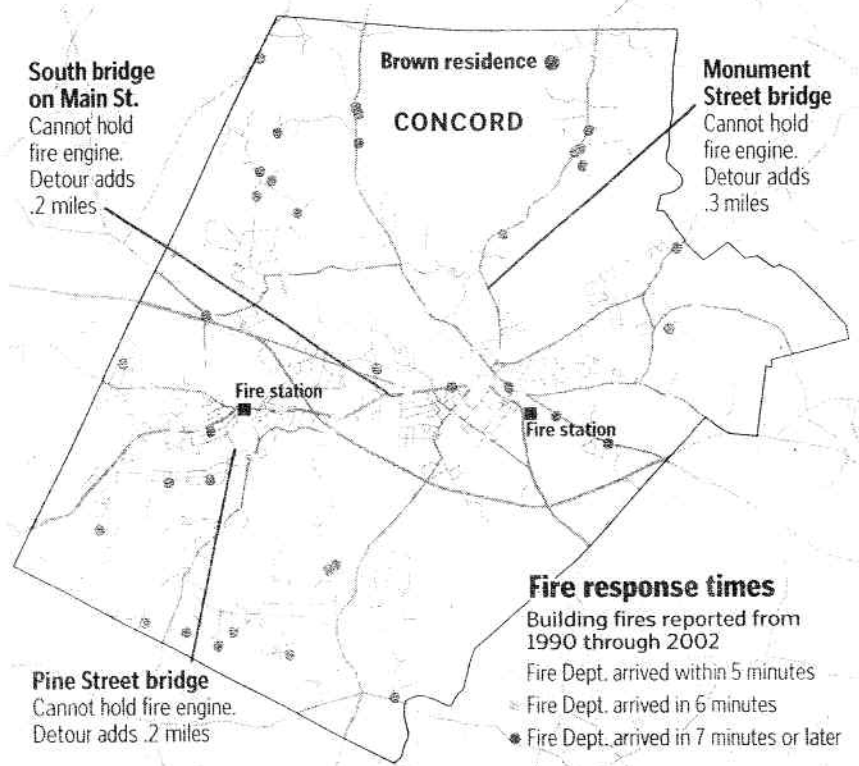
When the Browns' daughter had a seizure, the family waited 10 minutes for an ambulance. When their basement home theater burst into flames, they waited 11 minutes for a fire engine. And when a guest at their Christmas Eve party fell unconscious, 13 minutes passed before an emergency crew rolled up.

The other incidents were less serious, but in each case firefighters responded in 9 minutes or longer, well beyond the 6-minute national standard for fire and ambulance response.

The Brown family is just fine, if a little accident-prone. And they did choose to live at the northern edge of Concord, far from the nearest fire station. But a long wait for help can happen at any address in town.

The Middlesex School, in northeast Concord, waited 8 minutes for a fire engine in 2000. Concord Academy, right downtown, waited 9 minutes in 1998.

The problem is compounded because Concord's firefighters, like so many in the suburbs, do double duty on the town ambulance. The two firefighters on each shift



SOURCE: Town of Concord; Globe analysis of National Fire Incident Reporting System data

GLOBE STAFF MAP/DAVID BUTLER

So far, no one in Concord has died from such delays.

"This town has a halo over it," Concord fire Captain Mark R. Coteau said.

The Concord Fire Department has modern equipment, a new fire chief, and dedicated firefighters. But like many suburban communities, its resources are, in other ways, stuck in the 1950s. Concord has two fire stations to cover 26 square miles, just as in 1951. It has eight firefighters per shift, just as in 1956.

What has changed since the '50s is the department's workload. While Concord's population has grown by half, the number of calls handled by the fire department has grown tenfold, from about 500 to more than 5,000 a year. Most of the increase is for medical calls. And back in the

1950s, an ambulance weighs 8 tons, a fire engine 18 tons, a ladder truck 22 tons.

Any emergency in northeast Concord takes firefighters on a winding detour through Minute Man National Historical Park, where they compete with tour buses. Unless, of course, there is absolutely no time for a detour.

"If you tell me that a kid is choking up on Monument Street, I'm going across that bridge," Concord firefighter Brian LeFebvre said.

Concord has three bridges that will not bear the weight of a ladder truck, but this is hardly a one-town problem. Across the state there are 458 such bridges, excluding those on the narrowest rural roads, the Globe calculated from federal records.

The fire department's share of the municipal budget in Concord is

Fire Protection Association. That ranks Concord 144th among 186 communities in Eastern Massachusetts in on-time response, but ahead of some suburban peers, such as Groton, Stow, Hopkinton, Boxborough, and Harvard.

The problem is made more difficult because each community in the state handles fire service largely on its own. There is a Concord-Carlisle Regional High School, but each town has its own, underfunded fire department.

"It's a question of what level of risk the community is ready to accept," said Concord's new fire chief, Kenneth Willette. "People don't know about the fire department. I need parks because my kid plays soccer. I need roads because I drive to work. I need the schools. Do I need the fire department?"

Town Manager Christopher Whelan said he was surprised by the substandard on-time rate. "I've been here 11 years, and no one has identified response times as a problem," Whelan said. "We've talked often about staffing."

Not even the town's current staffing plan of eight firefighters per shift is assured; the fire department runs short with only seven firefighters for several months each year when the budget runs low. And, barely able to staff its current firehouses, Concord has not studied how many fire stations it needs. Even if taxpayers were more aware of the long waits, Whelan said, public safety might not be the priority. Incomes in Concord are high, but with home values soaring, so are taxes.

"People love the fire department," he said. "But does that translate into dollars? There is a strong sense that taxes in Concord have gone up enough."

The firefighters do not complain about the lack of stations and staff. Still, it is hard not to be aware of the problem when two guys are alone at a fire, pumping 250 gallons a minute from a pumper that holds only 750 gallons, wondering when someone else is coming to lay hoses to a fire hydrant or to a house inside to

## APPENDIX Y

THE NUMBERS

The Globe examined fire response times by looking at public records of fires reported by fire departments across the United States to a federal database, the National Fire Incident Reporting System. Each report shows the time the fire department received the alarm and the time the first responder arrived.

The Globe calculated the difference between those two, the response time.

To focus on true emergencies and ensure that fire departments were fairly compared, the Globe limited the study to:

- Actual fires — no false alarms, ambulance calls, cats in trees.
- Building fires — no grass fires or car fires.
- Fires directly within a fire department's area of responsibility — no mutual-aid calls.
- Fires for which the response time was greater than zero and less than 30 minutes — to weed out probable cases of faulty data or typographical errors.

That left 3.3 million building fires, reported by 20,000 fire departments from 1986 through 2002. The reporting is voluntary in most states, but Massachusetts law requires it. For each fire department the Globe calculated an on-time rate, or the share of fires getting a response within 6 minutes, the standard advocated by the National Fire Protection Association and its national panel of fire chiefs, firefighters, and specialists.

The national database also included fire department estimates of property damage caused by a blaze, and reports of injuries or deaths. That enabled the Globe to correlate property loss and personal injury to response time.

The Globe findings were reviewed by a professor of statistics, Elaine Allen of Babson College in

assigned to the ladder truck also serve as the ambulance crew. It is a recipe for trouble, as the Browns found out that Christmas Eve. The fire crew was busy with a stove fire; the ladder crew had to return to the station to get the ambulance and make its way to the family home.

'50s, the fire department had dozens of volunteers; now it is down to one.

Another challenge is the roads. On many calls in Concord, firefighters must take a detour. The direct route to the Browns' house goes across Flint's Bridge. Built in 1877, the bridge can safely carry only 5

the fire department's share of the municipal budget has slipped in Concord, as in most communities in the state and in the nation generally. Meanwhile, Concord firefighters arrived at the scene within 6 minutes at 76 percent of building fires from 1986 through 2002, well below the 90 percent guideline set by the National

someone else is coming to lay noses to a fire hydrant, to search for people inside, to put up ladders, and to watch their backs.

"They don't hire us to go to a fire and stand in the doorway," Captain Cotreau said. "We're going to get it done. Or we're going to try. On the other hand, we're not in the suicide business."

Elaine Allen of Babson College in Wellesley, who concluded that they show a statistically significant pattern. A fuller description of the study methodology is online at [\*\*boston.com/fires\*\*](http://boston.com/fires).